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ABSTRACT

The Mentor Teacher Internship Program (M.T.I.P.) represents, a collaboration between the Board of Education of the City of New York and the United Federation of Teachers. The program establishes a relationship between an experienced mentor teacher and a newly hired uncertified teacher. This report evaluates the 1992-93 M.T.I.P., discusses the program's implementation, analyzes outcomes, and based on findings, makes specific recommendations. Evaluators of the Board's Office of Educational Research (OER) sent survey questionnaires to all mentors (N=864) all interns (N=1,264), and a control group of 100 new teachers who were eligible for the program but had not been matched with a mentor. Mentors who responded to the questionnaire (a total of 542) noted a number of benefits that accrued from the program. They typically rated the program highly on its effectiveness in increasing their professional satisfaction and their coaching skills. New teachers who responded (N=516) also indicated that the program had beneficial effects. Five tables display mean ratings of comfort in academic areas by mentored and unmentored respondents; national norms and scores of M.T.I.P. respondents on the Maslach Burnout Inventory Subscale; intention to teach of mentored and unmentored respondents; intention to teach of interns who began participation in M.T.I.P. in 1992 or 1993; and intention to teach of interns whose teaching area did or did not match that of their mentor. (LL)

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OREA Report

MENTOR TEACHER INTERNSHIP PROGRAM

1992-93

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MENTOR TEACHER INTERNSHIP PROGRAM

1992-93

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EXECUTIVE SUMMARY

The Mentor Teacher Internship Program (M.T.I.P.) represents a collaboration between the Board of Education of the City of New York and the United Federation of Teachers (U.F.T.). The purpose of the program is to establish a supportive and confidential relationship between an experienced mentor teacher and a newly hired uncertified teacher. The overall goal of the M.T.I.P. is to improve instruction for the students and to develop and retain an effective teaching force in the New York City public schools.

Coordination of the program at the Board of Education was carried out by the Office of Special Programs. These staff members provided technical assistance, training, and materials to districts, high schools, and the district or high school-based Mentor Advisory Selection Committees (MASCs), which recommended mentors and mentor-intern matches to the superintendent.

Program guidelines stipulated that all interns were to receive four mentoring periods per week. These four periods included two periods in which the mentor was in the intern's classroom and two other periods in which the intern conferred with the mentor and visited either the classroom of the mentor or that of a colleague. The program also offered interns a tuition-free after-school graduate-level course and offered mentors both a two-hour orientation and an 18-hour peer coaching course.

Evaluators of the Board of Education's Office of Educational Research (OER), sent survey questionnaires to all of the mentors (864), all of the interns (1,264), and a control group of 100 new teachers who were eligible for the program but had not been matched with a mentor. OER evaluators also mailed survey questionnaires to the 40 district liaisons and the 39 U.F.T. district representatives.

The mentors who responded to the questionnaires had taught an average of 20 years in the New York City public schools and typically had either a master's degree or a master's degree plus 30 credits. The majority had not participated in the program in the past. Mentor responses indicated that most schools had adopted the recommended mentor-intern model, in which mentors currently teaching in the same school as their interns were released three periods a week to serve one intern or five periods a week to serve two interns. Substitute coverage for the mentors was provided in a variety of ways; mentors rated that coverage as close to excellent.

The interns who responded to the questionnaire generally had not taught previously in the New York City public schools and typically had a bachelor's degree. The majority lacked either the required education credits or both the education credits and

the teaching experience required for a New York State teaching certificate.

The M.T.I.P. was a complex program to implement and maintain. Both mentors and interns noted a number of difficulties, including scheduling problems and lack of time to devote to the program. In addition, both mentors and interns noted disadvantages of the late start of the program. Although program guidelines indicated a start-up time in early November 1992, in fact, the majority of the respondents to the OER questionnaire indicated that they had begun their participation in 1993. Some of the mentors commented that it was disruptive to both teachers and students when program assignments necessitated schedule changes after the beginning of the school year. Further, a number of the mentors and of the interns suggested that the program could be improved by beginning at the start of the school year, when the new teacher is most in need of support and guidance.

Overall, however, the mentors indicated that the program had had a number of beneficial effects. The mentors who responded to the questionnaire noted a number of benefits that they received from the program. They typically rated the program highly on its effectiveness in increasing their professional satisfaction and their coaching skills. Moreover, a number of the mentors noted that participation in the program had improved their own sense of worth and that their interns had helped them by giving them feedback on demonstrations and by sharing literature, teaching techniques, curriculum, and lesson plans. The mentors also noted a number of benefits that the interns had received from the program. They typically rated the program highly on its effectiveness in improving the interns' ability to instruct, to manage the classroom, and to work with the system. They also rated the program highly on its effectiveness in improving the interns' probability of teaching in the following year.

The new teachers who responded to the OER questionnaire also indicated that the program had had beneficial effects. Approximately one-third of the respondents had taken one of the after-school graduate-level courses and reported that the course had contributed to their professional development and would help them to complete their certification requirements. In addition, new teachers who had been mentored improved more during the school year in their comfort level in such areas as managing their classrooms than new teachers who had not been mentored. Moreover, those who had been mentored were somewhat more likely than those who had not been mentored to say that they intended to teach in the New York City public schools for the next five years and somewhat less likely to say that they intended to teach for a shorter period of time.

Analysis of the data indicated that the program was most beneficial for those new teachers who had participated in the program for a longer period of time. Mentors who had begun to coach their interns in 1992 (rather than 1993) saw the program as more effective in improving their interns' ability to manage their classrooms. Moreover, the new teachers who had begun to participate in 1992 (rather than 1993) were more likely to indicate that they planned to teach for the next five years.

Further analysis of the data indicated that the program was also most beneficial for those new teachers whose teaching area matched that of their mentors. New teachers whose teaching area was the same as that of their mentors were more likely to plan to teach in the New York City public schools for the next five years.

Based on the findings of the evaluation, OER makes the following specific recommendations.

- Data on both interns' teaching skills and probable retention indicated the beneficial effect of the M.T.I.P. This beneficial program should be continued.

- In 1992-93, many mentors did not attend the two-hour orientation provided for them. However, a number of the mentors suggested that a joint mentor/intern orientation would have been helpful. M.T.I.P. should allow time before the program begins for joint mentor/intern orientation sessions as well as mentor orientation sessions.

- M.T.I.P. data indicated the beneficial effects of matching mentors and interns according to subject area taught. The MASC should attempt to match mentors and interns on as many criteria as possible. This would facilitate communication on curriculum and other pertinent matters between mentor and intern.

- M.T.I.P. data indicated the beneficial effects of beginning the mentoring experience early in the school year. M.T.I.P. should be implemented as close to the beginning of school year as possible. This would allow interns to receive guidance when they need and want it most.

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I. INTRODUCTION

PROGRAM BACKGROUND

The Mentor Teacher Internship Program (M.T.I.P.) is a collaborative effort of the Board of Education of the City of New York and the United Federation of Teachers (U.F.T.). The program, first implemented in 1986, was suspended in 1991 because of budgetary constraints, and reestablished during the 1992-93 school year in response to Section 80.18* of the New York State Regulations of the Commissioner of Education.

The purpose of the program is to establish a supportive, non-evaluative, and confidential relationship between an experienced mentor teacher and a newly hired uncertified teacher. Mentors are expected to engage in peer coaching with the interns in order to help improve their teaching effectiveness and to assist them in integrating into the school community. In addition, the 1992-93 program allowed interns to attend an accredited M.T.I.P. graduate-level course designed to meet their professional interests and needs.

PROGRAM COMPONENTS

The overall goal of the Mentor Teacher Internship Program is to improve instruction for the students of the New York City public schools by supporting the professional development of beginning teachers. These professional development activities,

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*Section 80.18 of the New York State Regulations of the Commissioner mandates that all eligible uncertified, newly hired teachers receive mentoring.

during and afterschool, are designed to prepare, encourage, and retain an effective teaching force in the schools.

In 1992-93, all interns were to receive four mentoring program periods per week. This was to include two directed preparation periods and two periods during which the mentor was in the intern's classroom. Activities involving interns and mentors could include demonstration lessons, coaching, intervisitations, and planning meetings. Information shared between mentor and intern was confidential. The after-school professional development component offered interns the opportunity to complete a three-credit graduate level course. In addition, mentors were provided with an orientation to the program and on-going professional development throughout the year.

Program planners recommended that the School-Based Current Staff Part-Time Mentor Model be used to provide mentoring to one or two new teachers. This model uses mentors who are currently teaching in the same school as interns. If a school cannot utilize this model, alternative models can be used with the approval of the Division of Instruction and Professional Development. The alternative models include the School-Based Current Staff Extended Mentor Model in which the mentor teaches three to six interns in his/her school; the Mentor on Unpaid Leave/Retiree Mentor Model in which a mentor on unpaid leave or a retiree serves two interns in one day; the Itinerant Current Staff Mentor Model in which an itinerant mentor is used if

qualified school-based staff was unavailable; or the Intensified Secondary School Mentor Model in which a mentor serves one intern who receives six mentoring preparation periods for one semester only.

EVALUATION METHODOLOGY

The evaluators of the Board of Education's Office of Educational Research (OER) sent survey questionnaires to all of the mentors (N = 864) and all of the interns who had been paired with mentors (N = 1,264), and to a sample of interns who had not been matched with mentors (N = 100). Evaluators also sent questionnaires to the 40 district liaisons and the 39 U.F.T. district representatives. In addition, OER evaluators reviewed a sample of mentors' activity logs.

SCOPE OF THIS REPORT

This report presents OER's evaluation of the 1992-93 Mentor Teacher Internship Program. Chapter II presents a discussion of implementation, Chapter III an analysis of outcomes, and Chapter IV conclusions and recommendations.

II. PROGRAM IMPLEMENTATION

PARTICIPANTS

Profile of Mentors

In May 1993, OER personnel sent questionnaires to 864 mentors. Five hundred and forty-two mentors returned the questionnaires, a return rate of 63 percent. This return rate is unusually high for a one-shot mail survey.

The respondents represented all 32 school districts, as well as the divisions of high schools and special education. More than two-thirds (N = 371, 69 percent) were female. The majority of the respondents had achieved either a master's degree plus 30 credits (N = 341, 64 percent) or a master's degree alone (N = 68, 13 percent).

Program guidelines stipulated that all mentors possess at least five years of successful teaching experience in the New York City (N.Y.C.) public schools. On the average, the mentors who returned their questionnaires had taught close to 13 years in their present schools and 20 years in the N.Y.C. school system. The largest concentration of mentors was in the elementary grades (N = 109, 23 percent), special education (N = 86, 18 percent), and math/science (N = 79, 17 percent). The majority of the mentors (N = 349, 66 percent) had not served in the program in previous years.

Profile of Interns

In May 1993, OER personnel sent 1,264 questionnaires to interns who had been paired with mentors and 100 questionnaires

to a control group of teachers who were eligible to be interns, but had not been assigned a mentor. Five hundred and sixteen of the interns returned the questionnaire, an excellent return rate of 41 percent. Twenty-two of the control group returned the questionnaire, a return rate of 22 percent*.

Overall, the respondents represented all school districts and the divisions of high schools and special education. However, representation was less broad in the unmentored group than the mentored group; in the unmentored group, 15 of the 32 school districts, the high school division, and special education were represented; in the mentored group, all 32 school districts, the division of high schools, and special education were represented.

As with the mentors, the majority were female (mentored group: N = 255, 47 percent; unmentored group: N = 61, 70 percent). Unlike the mentors, who generally possessed a master's degree, the majority of both of the mentored and unmentored groups (mentored group: N = 353, 77 percent; unmentored group: N = 59, 70 percent) listed the B.A./B.S. as their highest degree.

To be eligible for the M.T.I.P., an intern was required to be newly hired in the N.Y.C. public schools and lacking the education credits and/or the student teaching/experience required

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*When OER staff read the questionnaires, they determined that 65 teachers in the intern group did not seem to have spent any time with their mentors. For the purpose of analysis, those teachers were considered to be part of the control group, thus creating a control (unmentored) group of 87 respondents and an intern (mentored) group of 451 respondents.

for a New York State teaching certificate. Consistent with this guideline, in the mentored group, the majority of the respondents (N = 231, 51 percent) had not taught previously; in the unmentored group as well, the majority of the respondents had either not taught (N = 31, 36 percent) or had taught less than one year (N = 26, 30 percent). In addition, the majority of both groups (mentored group: N = 402, 90 percent; unmentored group: N = 52, 64 percent) reported that they were uncertified. In general, those who were not certified lacked either the required education credits (mentored group: N = 161, 41 percent; unmentored group: N = 40, 57 percent) or both the education credits and the teaching experience (mentored group: N = 90, 23 percent; unmentored group: N = 23, 33 percent).

The majority of both groups (mentored group: N = 374, 85 percent; unmentored group: N = 66, 80 percent) reported that they had been assigned to a classroom and the largest concentration of respondents was in the elementary grades (mentored group: N = 93, 27 percent; unmentored group: N = 27, 31 percent). Sizeable numbers of respondents were also concentrated in the areas of bilingual education (mentored group: 14 percent; unmentored group: 16 percent), special education (mentored group: 21 percent; unmentored group: 14 percent), and math/science (mentored group: 12 percent; unmentored group: 14 percent).

When asked why they had decided to teach in the N.Y.C. public schools, the majority of the respondents chose the options "opportunity to help kids from the inner city" (62 percent) and

"opportunity to work with a mix of kids" (55 percent). Fewer of the respondents chose the options "use your skills/education" (44 percent); "convenient to your home" (21 percent); and "salary level" (18 percent).

ORGANIZATION AND ADMINISTRATION

M.T.I.P. staff at the Office of Special Programs of the Board of Education of the City of New York played a central role in coordinating and administering the program. These staff members designed the program guidelines and regulations, made up program models, and assisted with programming. They worked with representatives of the teachers' and supervisors' union to resolve implementation issues and worked with the state education department to be sure that the program was in compliance with state regulations. They helped to match mentors and interns, assisted in exempting and checking eligibility of interns, and provided weekly data-based updates on implementation to the state and to the chancellor. They provided technical assistance to districts, high schools, and Mentor Advisory Selection Committees (MASCs). They designed and disseminated materials for the orientations for MASCs and mentors, conducted the orientations for MASCs and district liaisons, trained the trainers of the two-hour mentor orientation, and helped to set up the 18-hour peer coaching courses*. They collaborated with the U.F.T. in arranging for the free after-school courses for interns,

*This course was developed by and comes out of the New York State United Teachers/U.F.T. Teaching Program.

disseminating material for these courses, and checking eligibility of interns. Finally, they designed and provided the program cards and log forms used by the mentors and collected the data generated by these forms.

The program guidelines recommended that schools adopt the School-Based Current Staff Part-Time Mentor model, in which mentors currently teaching in the same school as the interns, are released three periods to coach one new teacher and five periods to coach two. The majority of the mentor-intern pairs appeared to be following this model. Four hundred and thirty (80 percent) of the mentors who responded to the OER questionnaire reported that they were teaching in the same school as the interns. Eighty-seven (16 percent) reported that they were retired; six (one percent) said that they were on leave; and 14 (three percent) checked the option "other." In general, these mentors were coaching either one (N = 322, 60 percent) or two (N = 151, 28 percent) interns, and reported that they were released either five (N = 145, 36 percent) or three (N = 105, 26 percent) periods each week per intern.

Program guidelines stipulated that selection of mentors and other administrative tasks should be carried out by a Mentor Advisory Selection Committee (MASC), a 12-member district-based or high-school based committee, with a majority of teachers who were selected by the United Federation of Teachers (U.F.T.). Mandated responsibilities of the MASC included reviewing mentor applications, interviewing mentor candidates, matching mentors to

interns, and submitting recommendations to the superintendent for approval.

Program guidelines also stipulated that each district superintendent designate a liaison to the M.T.I.P. who would serve as the superintendent's designee member of the MASC and/or serve as a resource person during committee meetings. OER personnel sent questionnaires regarding the MASC to the 40 district liaisons and also to the 39 U.F.T. district representatives. Twenty-one (53 percent return rate) of the liaisons and 24 of the U.F.T. representatives (62 percent return rate) returned the questionnaires. Of those, the majority of the respondents noted that they had played a role in the selection of the MASC (79 percent of U.F.T. representatives and 48 percent of liaisons) and were also members or chairs of the MASC (79 percent of U.F.T. representatives; 62 percent of liaisons). Some of the district liaisons cited other roles in the M.T.I.P. such as disseminating information about the program, coordinating and monitoring the implementation of the program, organizing and scheduling mentor training, and conferring with principals.

The program guidelines required that the MASC match mentors to interns. OER collected some data on the type of matches that resulted. The mentor questionnaire asked the question directly, inquiring if mentors were similar in license area, subject area, grade level, or classroom floor to at least one of their interns. The mentor respondents most commonly noted similarity in grade level (N = 300 respondents, 55 percent), followed by similarity

in license area (N = 283, 52 percent), and similarity in subject area (N = 243, 45 percent). Respondents less frequently noted classrooms on same floor (N = 153, 28 percent). The intern questionnaire did not assess the mentor-intern match directly, however, in two separate questions, interns were asked to indicate the area in which they themselves were teaching and the area in which their mentor was teaching. Comparison of those responses indicated that one-half (173) of the interns considered themselves to be in the same area as their mentor, while the other half of the interns did not. Previous literature (Huling-Austin, 1992)* has indicated that careful matching of mentors and interns can be a factor in the success of the intern's experience. Those M.T.I.P. interns who commented that they would have preferred a closer match with their mentor tended to be in particular fields: physical education, speech, and bilingual education.

Once mentors had been assigned to interns, it was necessary to provide coverage for mentors' uncovered classes or class-hours. This coverage was provided in a variety of ways. One hundred and thirty-two (35 percent) of the mentor respondents reported that their classes were covered by an internal staff coverage teacher, 50 (13 percent) that their classes were covered by a long term part-time coverage teacher, and 13 (three percent) that their classes were covered by a recently retired coverage

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* Huling-Austin, L. (1992). Research on learning to teach: implications for teacher induction and mentoring programs. Journal of Teacher Education, 43 (3), 173-180.

teacher. The remainder of the mentors described a variety of arrangements; for example, some high school teachers were simply assigned to one less class than usual at the beginning of the spring semester. The mentors who received substitute classroom coverage rated that coverage as 4 on the average on a scale of 1 (poor) through 5 (excellent).

While participating in the M.T.I.P., each mentor received some support from other school and district personnel. The mentors who responded to the OER questionnaire rated the level of support they received on a scale of 1 (low) to 3 (high). On the average, these mentors rated support received as intermediate between low and high ($\underline{M}$ = 2.3 for principal's support, 2.2 for U.F.T. chapter leader's support, 2.1 for district office support, and 2.0 for district representative's support). In addition, some of the mentors commented favorably on the support that they received from other mentors and other teachers in their own schools.

M.T.I.P. ACTIVITIES

Coaching by Mentors

Program guidelines directed that mentoring begin no later than November 2, 1992. However, a longer period of time was required for organization. On November 2, 1992, of 1,269 eligible interns overall, 89 mentor-intern matches were reported; on December 7, 399 matches were reported; on January 21, 1993, 1,012 matches were reported; and on February 8, 1,095 matches were reported. Consistent with these systemwide data, the

majority of the respondents to the questionnaire reported that they had begun participation in the program in 1993, rather than 1992. Specifically, of the mentors, 180 (36 percent) reported that they had begun in the fall of 1992; the remainder, a majority (N = 318, 64 percent), in 1993. Of the interns, 135 (33 percent) reported that they had begun in 1992, the remainder, a majority (N = 268, 67 percent), in 1993. The late start of the M.T.I.P. seemed problematic to a number of the participants. Some of the mentors commented that it was disruptive to both teachers and students when the mentors had to change their schedules to allow them to spend time with their interns. Further, both the mentors and the interns who responded to an OER question on how the program could be improved most often suggested that it begin at the start of the school year, at the time when the new teacher is most in need of support and guidance.

Interns responded to a question about the number of periods the mentor spent in their classrooms. Consistent with program guidelines, the most frequent answer (N = 126, 30 percent) was two periods. Other frequent answers were one period (N = 89, 21 percent) and three periods (N = 79, 19 percent). The questionnaire also asked interns how many periods they spent on the program. Program guidelines stipulated four periods per intern, unless the school was using the Intensified Secondary School Mentor Model, in which case, the intern was to receive six periods per week. However, the most frequent answer (N = 111, 28

percent) to this item was three periods, with two periods (N = 69, 17 percent), four periods (N = 48, 12 percent), and five periods (N = 63, 15 percent) also appearing in response. This variability may have been due to interns' interpretation of the question. In some cases, they may not have included in their computations the periods that the mentors spent in their classrooms. In other cases, they may have been reflecting the reality of scheduling difficulties. Mentor logs indicated that, on occasion, meetings, trips, and half-days interfered with M.T.I.P. participation.

Mentors also described their coaching sessions with interns. The questionnaire addressed the content of the sessions by asking mentors to rate how frequently particular issues arose on a 1 (never) to 4 (often) scale. Mentors rated the frequency of the five issues listed in the following order (from most frequent to least frequent): instruction ($\underline{M}$ = 3.5); getting students to cooperate ($\underline{M}$ = 3.1); school/working environment ($\underline{M}$ = 2.8); administrative tasks ($\underline{M}$ = 2.6); dealing with parents ($\underline{M}$ = 2.0).

The questionnaire addressed the methods of coaching by asking mentors to rate how frequently particular methods were used on a 1 (never) to 4 (often) scale. Mentors rated the frequency of the three methods listed in the following order (from most frequent to least frequent): sharing information and products ($\underline{M}$ = 3.8); encouraging deliberation of choices ($\underline{M}$ = 3.4); directing action ($\underline{M}$ = 2.8).

The questionnaire data on the coaching sessions were supplemented by responses in monthly logs maintained by the mentors. OER personnel analysed a sample of 100 of these logs from December through June, including logs of elementary, high school, and special education mentors. Each log reflected the activities of a mentor with one, two, or more interns, on each of approximately 18 periods per month, yielding a total of more than 1,800 time periods in the entire sample. Overall, the data indicated that instructional strategies were the most frequent topic (30 percent of the time periods) and classroom management the next most frequent (16 percent). Other topics (teaching/ questioning, lesson plans, student needs, educational materials, technology, field trips, bulletin boards, homework, M.T.I.P. program administration, standardized testing, student records, staff development, student assessment, parent involvement, school environment, and I.E.P.s) were all somewhat less frequent. The data further indicated that coaching/viewing/intervisitation was the most frequent activity (32 percent of the time periods) and discussing/consulting/assisting (23 percent) the next most frequent. Demonstrating (18 percent), conferring/networking (14 percent), designing/development/ preparation/planning (10 percent) and documenting/reporting (4 percent) were somewhat less frequent.

The monthly logs included the mentors' reflections on their experiences in the M.T.I.P., their feelings, their concerns or problems, and their plans for the future. OER personnel coded a

sample of reflections in 300 logs from December through June. A number of themes emerged. Mentors tended to comment positively on the interns, as for example, "intern is hard-working, bright, energetic;" and also to comment positively on the interns' progress, as, for example, "intern has improved in management skills, resulting in a better learning environment and less time spent on dealing with misconduct," "intern has increased in self-confidence," and "intern is more student-directed." Mentors also commented positively on their own growth as coaches, as for example, "I am learning to be an active listener, not to be too helpful." Mentors described some problems they had encountered, noting, for example, that it was "difficult to advise someone who takes a defensive attitude," and that they had encountered "coverage problems" or had missed meetings "due to trips, parent conference days, testing days and personal problems." For the future, mentors suggested that the program "should begin earlier in the year when the new teachers are most needy," and that "interns should have an orientation to the program prior to starting the program with the mentor" or that there should be a joint "mentor/intern orientation" to outline the guidelines of the program.

Staff Development

Interns. The 1992-93 M.T.I.P., unlike that in previous years, offered the interns an opportunity to attend an accredited graduate-level course designed to meet the interests and needs of the interns and also to fulfill prescribed licensing and

certification requirements. The U.F.T., through its educational programs, was responsible for delivering the courses during the fall, spring, and summer of 1992-93. The N.Y.C. public schools allocated funds for course tuition. A wide range of courses was offered, including some with a focus on teaching techniques and classroom management: (e.g., keys to motivation; seminar in behavior management); others with a focus on specific content areas (e.g., math for teaching of regular and mainstreamed classes; reading in the content areas; science curriculum and instruction in elementary school); and others with a focus on content or technique combined with a focus on specific groups of pupils (e.g., innovative curriculum and teaching practices for at-risk students at secondary level; bilingual/E.S.L curriculum development; reading and language arts; learning disabilities and reading problems in special education and mainstreamed classrooms; teaching through learning channels for exceptional students).

Respondents to the OER questionnaire indicated whether they had taken a graduate course as part of the M.T.I.P. Overall, 161 respondents (32 percent) answered in the affirmative. Of these, 153 were in the mentored group and eight in the unmentored group. Eighty-two percent of those who took a course said that it would help or did help them to achieve certification. In positive comments on the course, respondents noted that they had been encouraged to use new techniques in their classrooms and had benefitted greatly from sharing information with their

colleagues. In general, respondents noted that taking the course had affected their expertise by improving their teaching strategies and classroom management techniques, and sharpening their listening and verbal skills. Moreover, they noted that taking the course had contributed to their professional development by broadening their knowledge of learning styles (multicultural education, special education, individual differences), and increasing their self-confidence, ability to share information with colleagues, and ability to deal with colleagues in a professional manner. In response to an open-ended question on "suggestions to improve the M.T.I.P.", several interns focussed on the value of the graduate class (e.g., "The graduate class was extremely helpful; please cntinue it"); several others suggested specific changes in the program (e.g., "It would be helpful if the graduate courses... were held closer to new teachers' working sites.")

Mentor workshops. Program guidelines directed that mentors be provided with a two-hour orientation to the program facilitated by district staff. Mentors were also to be provided with 18 hours of district-based professional development activities during the school year. The district directors of instruction and professional development, in collaboration with the MASC, were responsible for administering these activities. The staff development design was to be built around the course "Peer Coaching for Mentors," and include opportunities to address issues of local concern.

The majority of respondents to the OER questionnaire indicated that they had participated in the staff development program for mentors. Only 187 (34 percent) reported that they had taken part in the two-hour orientation, perhaps because some mentors were appointed after the program had begun and others had attended a similar orientation in earlier years. However, 441 (81 percent) reported that they had taken part in the 18-hour program, and 63 (17 percent) indicated that they had taken part in other training for mentors. Five hundred and thirty-three mentors responded to a Board of Education evaluation form after attending one of these workshops. On a 1 (poor) to 4 (excellent) scale, on the average, respondents gave the meeting a high rating ($\underline{M}$ = 3.5).

III. OUTCOMES

OER data indicated that participation had a number of positive effects on both the interns and the mentors.

MENTORS' OUTCOMES

The literature on teacher induction suggests that mentors may benefit from their coaching experience. Huling-Austin (1992)*, for instance, suggests that mentors experience professional growth when they engage in the process of observing and being observed.

Participation in the M.T.I.P. seemed to benefit the mentors in a number of ways. Respondents to the OER questionnaire indicated that the program had "increased their professional satisfaction" (M = 4.3 on a 5-point scale), and had "increased their skills as a coach" (M = 4.4 on a 5-point scale). Modal response to both of these items was 5 on a 5-point scale (where 5 = "program is highly effective").

In comments on the program, a number of mentors reported that both they and their interns became better instructors, and that in coaching their interns, they had become more conscious of and improved their own teaching techniques. Further, a number of mentors reported that the program had improved their own sense of worth and that they had emerged from the program feeling re-invigorated and renewed. One mentor, reflecting the feelings of

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*Huling-Austin, L. (1992). Research on learning to teach: implications for teacher induction and mentoring programs. Journal of Teacher Education, 43(3), 173-180.

others, commented that the M.T.I.P. was "one of the best experiences of my career;" another commented that "this program gives me renewed hope for the system."

Mentor respondents also indicated whether the interns had helped them in any of a variety of specific ways. Only 70 respondents (13 percent) indicated that the intern had not helped them in any way. Three hundred and eighty-three respondents (71 percent) reported that the intern had helped by giving feedback on demonstrations; 200 (37 percent) reported that the intern had shared literature, teaching techniques, and curriculum; 146 (27 percent) noted that the intern had shared lesson plans; and 84 (16 percent) indicated that the intern had been helpful in other ways.

INTERNS' OUTCOMES

The beneficial effect of a mentor teacher on the new teacher is well documented in the teacher induction literature. Smylie (1989)* found that of 14 possible sources of learning, direct experience in the classroom was the only source that teachers ranked higher than consultation with other teachers. Huling-Austin (1992)** noted that new teachers experience isolation and reality shock. The experience of observing and being observed in a mentoring program facilitates the development of

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*Smylie, M. (1989). Teachers' views of the effectiveness of sources of learning to teach. Elementary School Journal, 89, 543-48.

**Huling-Augstin, L. (1992). Research on learning to teach: Implications for teacher inductin and mentoring programs. Journal of Teacher Education, 43(3), 173-180.

teaching expertise and socializes the new teacher to norms of collegiality and continuous improvement. Furthermore, Odell and Ferraro (1992)*, in a longitudinal study, found that mentored teachers had a lower attrition rate after five years than did teachers nationally. OER investigated the effect of the M.T.I.P. on the interns' teaching skills, level of burnout, and plans to remain in the N.Y.C. public school system.

Interns' Teaching Skills

A major goal of the M.T.I.P. was to improve interns' teaching effectiveness. Questionnaire responses of both mentors and interns provided evidence that this goal had been met.

Mentors' assessment. The mentors who responded to the OER questionnaire rated the program's effectiveness in improving the interns' ability to instruct on a five-point scale (1 = don't know; 5 = highly effective). Mentors' average response to that item was a positive one (M = 4.3, mode = 5). Mentors also responded favorably when asked to rate the program's effectiveness in improving interns' ability to manage the classroom (M = 4.2, mode = 4), and to work with the system (M = 4.1, mode = 4), but somewhat less favorably when asked to rate the program's effectiveness in improving interns' ability to deal with parents (M = 3, mode = 1).

Analysis of the data indicated that interns who were in the program for a longer time may have benefitted more than other

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*Odell, S. J., & Ferraro, D. P. (1992). Teacher mentoring and teacher retention. Journal of Teacher Education, 43(3), 200-204.

interns. Mentors who had begun to work with their interns in 1992, rather than 1993, saw the program as more effective in improving the intern's ability to instruct (1992: $\underline{M}$ = 4.45; 1993: $\underline{M}$ = 4.23, $t = 2.98$, $p < .01$). Moreover, mentors who had begun to work with their interns in 1992, rather than 1993, saw the program as more effective in improving the intern's ability to manage the clasroom (1992: $\underline{M}$ = 4.33; 1993: $\underline{M}$ = 4.15, $t = 2.22$, $p < .05$).

Interns' assessment. The OER questionnaire for both mentored and unmentored groups asked respondents to rate their level of comfort in dealing with 15 specific areas of functioning before the program began and at the current time (May, 1993). As shown in Table 1, responses for both the mentored and the unmentored groups indicated considerably greater comfort at the time of responding to the questionnaire than before the program began.

Although both groups improved in their comfort level, it appeared that this improvement was expedited by the presence of a mentor. The degree of improvement for the mentored group (from an overall mean of 40 to 48) was somewhat greater than that for the unmentored group (from an overall mean of 42 to 47). Moreover, statistical analysis of responses to individual items indicated that improvement in comfort level for respondents in the mentored group was greater than that in the unmentored group in four specific areas: disciplining/managing their classrooms, writing their lesson plans, working with fellow faculty, and confidence in their teaching.

Table 1

Mean Ratings of Comfort in Academic Areas
by Mentored and Unmentored Respondents

Academic Area	Before Program Began		May 1993	
	Mentored	Unmentored	Mentored	Unmentored
Class Management	2.47	2.64	3.28	3.14[a]
Levels of Students	2.60	2.64	3.22	3.16
Behavior Problems	2.35	2.45	3.08	3.01
Learning Problems	2.46	2.59	3.01	2.95
Heavy Workload	2.63	2.65	3.15	3.05
Classroom Routine	2.73	2.93	3.42	3.41
Testing/Assessment	2.66	2.80	3.24	3.21
Curriculum Guides	2.67	2.76	3.21	3.07
Lesson Plans	2.64	2.82	3.32	3.11[a]
Paperwork	2.76	2.94	3.28	3.22
Obtaining Materials	2.36	2.35	2.99	2.71
Working with Administration	2.88	2.99	3.27	3.19

(continued)

[a]Analyses of variance followed by correction of significance levels using the Bonferroni technique indicated that the time (before vs. after the program began) x group (mentored vs. unmentored respondents) interaction was significant ($p < .05$) for four items: classroom management, lesson plans, working with fellow faculty, confidence in teaching. In each case, the improvement during the school year was greater for the mentored respondents than for the unmentored respondents.

Table 1 continued

Mean Ratings of Comfort in Academic Areas
by Mentored and Unmentored Respondents

Academic Area	Before Program Began		May 1993	
	Mentored	Unmentored	Mentored	Unmentored
Fellow Faculty	3.12	3.27	3.49	3.40[a]
Parents	2.95	3.10	3.37	3.37
Confidence in own Teaching	2.91	3.23	3.48	3.45[a]

[a]Analyses of variance followed by correction of significance levels using the Bonferroni technique indicated that the time (before vs. after the program began) x group (mentored vs. unmentored respondents) interaction was significant ($p < .05$) for four items: classroom management, lesson plans, working with fellow faculty, confidence in teaching. In each case, the improvement during the school year was greater for the mentored respondents than for the unmentored respondents.

- Both mentored and unmentored respondents rated themselves as more comfortable in May 1993 than they were at the beginning of the school year.

- Mentored respondents improved more in comfort level during the school year than unmentored respondents in four areas: classroom management, lesson plans, interaction with fellow faculty, and confidence in their own teaching.

INTERNS' RESPONSES TO THE BURNOUT INVENTORY

Responding to the fact that new teachers frequently report feelings of isolation and frustration as they learn to negotiate and work in the school environment, interns were asked to complete the educator's form of the Maslach Burnout Inventory (M.B.I.). This measure includes 22 items, each followed by a 7-point response scale from 0 (never) to 6 (every day). The items are divided into three subscales: emotional exhaustion, depersonalization, and personal accomplishment. The measure has been reported to be high in reliability and validity (Maslach and Jackson, 1986) and is based on the assumption that burnout, a syndrome common among those working intensely with other people, is characterized by the factors assessed by the three subtests: emotional exhaustion (a feeling that one can no longer give of oneself); depersonalization (negative, cynical attitudes about one's clients); and reduced personal accomplishment (a tendency to evaluate oneself negatively with regard to one's work). Research has shown that burnout in teachers is predictive of job search behaviors and eventual turnover*.

Mean subscale scores of mentored and unmentored respondents on the M.B.I. and national norms on the M.B.I. can be seen in Table 2. It can be seen that the mentored and unmentored groups

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*Maslach, C., & Jackson, S. E. (1986). Maslach Burnout Inventory. (2nd Ed.). Palo Alto, CA.: Consulting Psychologists Press.

Table 2

National Norms and M.T.I.P. Respondents' Mean Maslach Burnout Inventory Subscale Scores[a]

Subscales	N.Y.C. Sample		National Norm
	Mentored	Unmentored	
Personal Accomplishment	38.16	37.43	33.43[b]
Emotional Exhaustion	17.70	17.57	21.25[c]
Depersonalization	4.69	4.52	11.00[c]

[a]On the Personal Accomplishment subscale, lower scores mean greater burnout. On the Emotional Exhaustion and Depersonalization subscales, higher scores mean greater burnout.

[b]The N.Y.C. sample (mentored + unmentored combined) was significantly higher than the national norm on sense of Personal Accomplishment, $t = 13.27$, $p < .01$.

[c]The N.Y.C. sample (mentored + unmentored combined) was significantly lower than the national norm on Emotional Exhaustion ($t = 7$, $p < .01$) and on Depersonalization ($t = 26.08$, $p < .01$).

- The N.Y.C. sample was less "burned-out" than the national norm on all three M.B.I. subscales.

responded very similarly to the M.B.I. However, there was a significant difference between the M.T.I.P. sample and the national norms on each of the subtests. On all three of the subtests, the M.T.I.P. sample appeared less "burned out" than the national norm. On the average, the M.T.I.P. sample experienced less emotional exhaustion, less depersonalization, and more personal satisfaction than indicated in the national norm. Those numbers speak well for the energy and enthusiasm of the new uncertified teachers.

RETENTION OF INTERNS

The basic goal of the M.T.I.P. is to develop and also to retain an effective teaching force for the students of the N.Y.C. public schools. OER assessed probable retention of M.T.I.P. participants on both the mentor questionnaire and the intern questionnaire.

OER asked the mentors to rate the program's effectiveness in improving the intern's probability of teaching in the following year on a 1 (don't know) to 5 (highly effective) scale. The mentors' average response was a favorable 4.1, and the modal response a 5.

OER asked the interns whether they planned to teach in the N.Y.C. public schools for the next five years, next three years, next year, tentatively in the future, or not at all. Overall, most (88 percent) of the mentored and unmentored respondents intended to teach for the next year or longer. However, analysis of the data indicated that participation in the M.T.I.P.

may have facilitated long-range plans to remain in the N.Y.C. public schools. As indicated in Table 3, respondents in the mentored group were somewhat more likely than those in the unmentored group to say that they intended to teach for the next five years (64 percent cf. 55 percent) and were somewhat less likely to say that they intended to teach for a shorter period of time.

Further analysis of the data indicated that some categories of M.T.I.P. participants were more likely to indicate a long-range teaching plan than others. Specifically, respondents who began participation in the program earlier, (in 1992 rather than 1993), were more likely to plan to teach for the next five years (65 percent cf. 59 percent) as illustrated in Table 4. Further, as shown in Table 5, respondents whose teaching area was the same as that of their mentors were more likely to plan to teach for the next five years than those whose teaching area was not the same (70 percent and 57 percent respectively).

Table 3

Intention to Teach of Mentored and Unmentored Respondents

Response	Percent of Group Choosing Response	
	Mentored Group	Unmentored Group
Definitely plan to teach for next five years	64	55
Definitely plan to teach for next three years	17	25
Definitely plan to teach for next year only	6	10
Tentatively plan to teach in the future	11	8
Don't think I will teach again	2	2
Will not teach again	1	0

- Mentored respondents were somewhat more likely than unmentored respondents to plan to teach for the next five years and somewhat less likely to plan to teach for a shorter period of time.

Table 4

Intention to Teach of Interns Who Began Participation in M.T.I.P. in 1992 or 1993

Response	Percent of Group Choosing Response: Interns Who Began in 1992	Interns Who Began in 1993
Definitely plan to teach for next five years	65	59[a]
Definitely plan to teach for next three years	19	18
Definitely plan to teach for next year only	2	9
Tentatively plan to teach in the future	14	11
Don't think I will teach again	1	3
Will not teach again	0	0

[a]A chi square test indicated that respondents who began in 1992 were significantly different from respondents who began in 1993, chi square = 11.49, $p < .01$.

- Interns who began in 1992 were significantly more likely to report that they definitely planned to teach for the next five years than were those who began the program in 1993.

Table 5

Intention to Teach of Interns Whose Teaching Area Did or Did Not Match that of their Mentor

Response	Percent of Group Choosing Response	
	Mentor-Intern Area Did Match	Mentor-Intern Area Did Not Match
Definitely plan to teach for next five years	70	57*
Definitely plan to teach for next three years	16	22
Definitely plan to teach for next year only	3	9
Tentatively plan to teach in the future	9	11
Don't think I will teach again	2	1
Will not teach again	0	0

*A chi square test indicated that respondents whose teaching area matched that of their mentor were significantly different from respondents whose teaching area did not match that of their mentor, chi square = 14.05, $p < .01$.

- Interns whose mentor taught the same subject were significantly more likely to report that they definitely planned to teach for the next five years than were interns whose mentors taught in subject area that was different to their own.

IV. CONCLUSIONS AND RECOMMENDATIONS

The M.T.I.P. was a challenging program to implement and maintain. Mentors noted a number of difficulties, e.g., late start and scheduling problems. Interns noted similar difficulties from their point of view, e.g., again the late start, insufficient orientation/introduction to the program, and lack of time to devote to the program.

However, despite the difficulties, the M.T.I.P., consistent with previous literature, had positive effects on the interns. Participation in the program facilitated improvement in the interns' teaching skills and in their integration into the system. This improvement was reflected both in the mentors' ratings of the effectiveness of the program and in the interns' own ratings of their comfort with various areas of functioning in the school and in the classroom. Participation also seemed to encourage the interns to make long-range plans to remain in the N.Y.C. public school system. This improvement was again reflected both in the mentors' ratings of the effectiveness of the program and in the interns' own responses.

The mentors, as well as the interns, seemed to benefit from participation in the M.T.I.P. A subtle measure of impact on mentors might be the high response rate to the OER questionnaire. In addition, in both their activity logs and responses to the questionnaire, many mentors made glowing comments about positive effects on their own teaching and their enthusiasm for their profession.

The major goals of the M.T.I.P. were to improve the effectiveness of teaching and improve retention of new teachers. Length of time in the program predicted the ability of the program to meet both of these goals. Mentors who had begun the program in 1992, rather than 1993, rated the program as more effective in improving the intern's ability to instruct and ability to manage the classroom. Moreover, interns, who had begun the program in 1992, rather than 1993, were more likely to indicate that they planned to remain in the N.Y.C. public schools for the next five years.

The match between mentor and intern predicted the ability of the program to meet the goal of teacher retention. Respondents whose teaching area was the same as that of their mentor were more likely to plan to teach for the next five years than those whose teaching area was not the same.

Comparison between the M.T.I.P. sample of uncertified teachers and a national normative group on a standardized burnout inventory had interesting implications. The M.T.I.P. sample appeared less "burned-out" on measures of emotional exhaustion, depersonalization and personal satisfaction. The results indicate the high potential of these new, uncertified teachers.

Based on the findings of the evaluation, makes the following specific recommendations.

- Data on both interns' teaching skills and probable retention indicated the beneficial effect of the M.T.I.P. This beneficial program should be continued.

- In 1992-93, many mentors did not attend the two-hour orientation provided for them. However, a number of the mentors suggested that a joint mentor/intern orientation would have been helpful. M.T.I.P. should allow time before the program begins for joint mentor/intern orientation sessions as well as mentor orientation sessions.

- M.T.I.P. data indicated the beneficial effects of matching mentors and interns according to subject area taught. The MASC should attempt to match mentors and interns on as many criteria as possible. This would facilitate communication on curriculum and other pertinent matters between mentor and intern.

- M.T.I.P. data indicated the beneficial effects of beginning the mentoring experience early in the school year. M.T.I.P. should be implemented as close to the beginning of school year as possible. This would allow interns to receive guidance when they need and want it most.